

REMARKS

Claims 1-8 and 10-19 are pending in the application.

Claims 3, 14, 15, 17, and 18 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The foregoing amendments are believed to overcome that rejection and put the claims in full compliance with §112.

Claims 1-18 were rejected under 35 U.S.C. § 102(b). The examiner alleges that the invention was in public use or on sale, and cites as authority a judgment of a Scottish court. Applicant submits that the judgment does not establish a public use or sale and, in fact, establishes that the invention as now claimed was not in public use or on sale anywhere in the world before the effective filing date of this application.

Paragraph 4 of the judgement of the Court of Session in Edinburgh shows to the case is concerned with alleged abuse of trade secrets and confidential information. (Paragraph number references are to the judgement as published on-line at <http://www.bailii.org/scot.cases/ScotCS/2000/299.html>.) Because the information was a trade secret and confidential, it could not have been in public use. Thus, no use, sale, or offer for sale of technology with which the present application is concerned occurred before applicant's priority date.

Paragraph 12 of the judgment refers to work which applicant undertook in association with Quantum Glass in the field of security printing, being concerned with dopants that absorb strongly at the infrared end of the spectrum. Paragraphs 14 and 17 also refer to "the Technology" in question concerning glasses that either absorb or emit infrared radiation. Claims 1 and 17 as now amended refer explicitly to examination of the "visible wavelength absorption spectrum" of the dopant. Accordingly, it is clear that the subject matter of the present claims is distinguished from any work done by applicant in association with Quantum Glass.

Paragraph 20 of the judgment refers to the fact that Quantum had considered patenting the technology developed by applicant during his association with Quantum but had decided to rely instead upon secrecy and confidentiality agreements to protect that technology. This establishes that the invention was not made public.

Paragraph 13 of the judgment refers to the involvement of a “major bank” and to a demonstration of Quantum’s technology to the bank. Paragraph 21 also refers to “the bank presentation.” It is clear from the remainder of the judgment, in particular the references noted above to secrecy and confidentiality, that any disclosure of information to the bank would have been made under conditions of confidentiality. None of the technology in question was fully developed at that time. Any discussions with the bank were of an exploratory nature and did not amount to an offer for sale. At no time was the technology in “public use.”

Moreover, all of the events described in the judgment took place in Europe. The bank in question was a European bank and all of the presentations and/or discussions in question took place in Europe. The statute is clear that any alleged public use or sale of the invention, to constitute a bar under § 102(b), must be *in this country* (i.e., in the United States). Whatever activity is described in the judgment, however it might be characterized, took place *outside* the United States. Section 102(b) simply does not apply to any such activity.

Accordingly, the rejection based on the Scottish judgment lacks foundation and must be withdrawn.

Claims 1-18 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. patent 4,442,170 (Kaule); claims 1-3, 6, 11-13, and 16 were rejected as anticipated by European publication 440554; and claims 1-3, 6-8, and 16-18 were rejected as anticipated by European publication 202902.

The claims as now amended are novel and inventive over the prior art of record. The prior art does not disclose or suggest the use of dopants that exhibit no UV, visible, or IR stimulated output. On the contrary, the prior art of record relies on some form of stimulated output (fluorescence, luminescence, quasi-resonant luminescence, etc.), or else on chemical reactions. None of the prior art discloses or suggests the use of a broad-band visible wavelength absorption spectrum as a basis for authentication, and none of the prior art discloses or suggests fusing basic dopant materials with other elements in order to alter the spectral signatures of the dopants. As such, it is submitted that the invention as now defined in the claims is not only clearly novel over the prior art of record, it cannot even be said to be in any way obvious in the light of the prior art.

Kaule repeatedly states that it deals with quasi-resonant *luminescent* dopants that *emit* visible radiation in narrow wavelength ranges close to the wavelengths of the applied excitation light. The title itself refers to an "authenticity mark of *luminescent* material." It is noted that Example 1 of Kaule refers to materials being "calcined" (*i.e.*, heated to a high temperature without fusing) and then micronized. Where the dopants are incorporated in glass, glass fibers or the like are incorporated into the documents; the dopants are not fused with other materials and then micronized as required by amended claims 1 and 17. It is clear that the processes and products disclosed by Kaule are entirely different from those of the present invention.

EP 440554 discloses a covert security feature involving two chemical reactants, one of which is incorporated into the document but provides no security features until it is chemically activated by the external application of a second chemical reactant. The authentication process involves the application of the second reactant, yielding a visible inscription on the document. This is clearly entirely different from the present invention as now defined in claims 1 and 17.

EP 202902 relates to security markings that are invisible in visible light but fluoresce under UV light. EP '902 is particularly concerned with providing such markings on ceramic articles by means of materials that will withstand ceramic firing temperatures. EP '902 is

exclusively concerned with providing UV-fluorescent markings and as such is entirely different from the present invention as defined in amended claims 1 and 17.

Because independent claims 1 and 17 are deemed allowable, claims 2-8, 10-16, and 18 that depend from claims 1 or 17 are deemed *a fortiori* allowable.

CONCLUSION

None of the activities alluded to in the judgment of the Court of Session in Edinburgh constitute a bar under 35 U.S.C. § 102(b) because:

(a) The technology developed by applicant in association with Quantum Glass was quite different from the subject matter of the present claims. None of the activities alluded to in the judgement concerns the subject matter of the present claims.

(b) None of the activities alluded to in the judgement amounted to public use, sale, or offer for sale of any of the technology in question.

(c) None of the activities alluded to in the judgement took place in the United States.

Moreover, the art of record fails to disclose or suggest the use of dopants that exhibit no UV, visible, or IR stimulated output, as is required by the present claims.

For all of the foregoing reasons, the application is deemed to be in condition for allowance. Withdrawal of all rejections and an early notice of allowance of claims 1-8 and 10-18 are earnestly solicited.

Respectfully submitted,
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